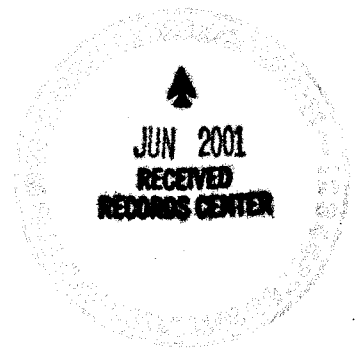


BUILDING 865 AND 883 PROJECT SCOPING MEETING

June 5, 2001



ADMIN RECORD

B865-A-000005

REVIEWED FOR CLASSIFICATION

By K. J. [signature]

Date 6/11/01

BUILDING 865 FACILITY DESCRIPTION

Building 865 is supported by several other buildings, which are included in this report. Building 863 is an electrical substation for the extrusion press. Building 865A is a process-cooling tower used to supply chilled water for the former process in Building 865. Building 866 houses the process waste collection and transfer system for Building 865. Buildings 867 and 868 serve as the exhaust plenums for Building 865.

Building 865 consists of a large, high bay machine shop in the south and office/laboratory areas on the north. The interior wall along Column Line C separates the high bay area from the remainder of the building. The high bay area is a Contaminated Area (CA) because of contamination from previous operations and processes involving uranium. All beryllium and uranium processing has ceased.

Building 865 is built on a concrete slab on grade, and there is no basement, although there are three sump pits that extend below grade. The exterior walls are made of up-ended pre-cast concrete T-beams. The roof is also pre-cast concrete with polyurethane foam insulation and neoprene topping. The interior walls are pre-cast concrete, concrete block, or gypsum board.

There are dropped acoustical tile ceilings in the office areas. The building has approximately 40,000 square feet of floor space, including the annex on the east. The building was originally constructed in 1970.

Building 865 is provided with typical safety features, including fire suppression throughout, life safety/disaster warning system, fire extinguishers, fire pull boxes, eyewash stations, emergency showers, and battery-powered emergency lighting systems.

The Building 865A cooling tower provides dedicated, closed loop chilled water to the Building 865 evaporative cooler for air conditioning and process cooling water heat exchanger in Room 140. The cooling tower is an evaporative-cooling type with re-circulating water sprays over the closed loop coils. The cooling tower is mounted on a concrete pad.

Facility Group 26 – Building 865

Description: Facility Group 26 consists of:

- B827: Emergency generator
- B865: Materials and process development laboratory
- C865: Cooling tower
- B866: Process waste transfer for B865
- B867: Filter plenum
- B868: Filter plenum
- Tank 010: Diesel storage
- Tank 011: Diesel storage

Technical Approach

Building 865 will be closed as a Type 2 Facility using a notification letter in accordance with the approved Rocky Flats Cleanup Agreement (RFCA) Standard Operating Protocol (RSOP). Buildings 866, 867, 868 will be closed as Type 2 facilities using standard RSOPs. The remaining facilities will be closed as Type 1 facilities. The closure strategy is to remove Building 865, the other facilities, and the tanks by working several decommissioning tasks in parallel.

Authorization Basis: Building 865 is currently operating under the Site-Wide SAR. Although the current AB is sufficient to perform a large number of decommissioning activities, it will require revision in order to perform pre-demolition structural modifications, address scenarios involving ducts and plenums, and address temporary conditions and systems. The current plan is to use the RSOPs and the Decommissioning Program Plan to cover decommissioning activities. For activities not covered by a RSOP, a Health and Safety Plan (HASP) will be prepared.

Personnel relocation: Personnel relocation is not an issue because only operations staffs are located in Building 865. Temporary shower and locker rooms may be provided during Decontamination and Decommissioning (D&D).

Security Requirements: Once all classified materials are verified as having been removed, security control requirements will be eliminated. This will allow the use of non-cleared personnel for hazard elimination, equipment removal, and demolition.

Decontamination: Interior surfaces of large equipment will be inspected to assure that there is no bulk uranium or other material present. No decontamination of massive equipment will be attempted. Fixatives will be applied to external surfaces and easily accessible interior surfaces prior to packaging for shipment. Fogs and fixatives will be applied to smaller pieces of equipment for contamination control during removal, size reduction and packaging operations. Decontamination of structures, including facility overheads, will be accomplished using standard decontamination processes.

Demolition: The demolition strategy for Building 865 is to use a fixed price subcontractor. The remaining Type 2 facilities will be surveyed decontaminated as required, and demolished using standard industrial techniques. Above ground tanks will be sold for reuse by a fixed-price demolition subcontractor or demolished if not saleable. A fixed price subcontractor, using standard industrial techniques, will demolish miscellaneous structures.

Hazards

Hazards associated with the closure of Facility Group include industrial, chemicals, and occupational hazards, Beryllium hazards, and hazards associated with Beryllium and radioactive contamination.

Assumptions

Building 865 will be closed using a project specific DPP.

Project Risks

No specific project risks have been identified for the tanks and miscellaneous structures. Project risks for Building 865 will be provided in a separate Hazards Assessment Analysis after the Reconnaissance Level Characterization (RLC) report is complete.

Schedule

Closure activities for Facility Group 26 will be planned and executed, based on the Site's 05 closure plan. Attachment 3 provides the summary schedule for closure.

Opportunities for Acceleration

The baseline schedule is to be completed with landlord and maintenance support activities in the 4th quarter of FY03. There have been many tasks completed to date that support the acceleration of cold closure of Group 26 by 12 to 16 months. The project team is working to be complete no later than the end of the 4th quarter FY01.

Stabilization and hazards removal started in FY99 and is currently scheduled to be complete by the end of the 3rd quarter FY01. This is an acceleration of 24 months.

The baseline schedule for Group 26 to initiate decommissioning activities is in the 3rd quarter FY02, and complete decommissioning by the end of the 4th quarter in FY05. The working schedule shows starting decommissioning in the 1st quarter FY02 and completing in the 4th quarter of FY04. This is an acceleration of decommissioning activities of 2 years if funding and resources are available.

BUILDING 883 OPERATING HISTORY AND PHYSICAL DESCRIPTION

Building 883, also known as the Uranium Rolling and Forming Facility, is a two-story, steel-framed building with a partial basement. Building 883 was constructed in 1957 as part of a major plant expansion to machine enriched and depleted uranium parts. Enriched uranium operations in Building 883 were discontinued between 1965-1966 when all enriched uranium work was moved to Oakridge. Building 883 continued to work on special projects, such as the manufacturing of armor plating for the M1A1 tanks, until the late 1980s. Building 883 also machined other non-fissile metals such as beryllium, tungsten, stainless steel, aluminum and vanadium, which were part of plutonium weapons production.

Process operations conducted in Building 883 included cleaning and heating materials prior to shaping, rolling the metal into sheets, cutting of blanks, forming into required shapes and cleaning after shaping. The sealed hollow shape of the components in the new weapon design required a significant amount of rolling and forming of both types of uranium.

Building 883 has three floors; the basement, the first floor and the second floor, which is sometimes, called the first floor mezzanine.

The basement area includes utility rooms (Rooms 6 and 7), a process waste collection area (Room 1), and a maintenance area (Room 3). Room 5 is the entrance to an underground tunnel, which leads to Building 881 and the air ventilation tunnels. The majority of the basement areas have had the furnishings, tools, and supplies removed from them.

The first floor consists of office space on the south side of the building and the process areas. The original exhaust air plenums and an electrical control room are also on the first floor. The processing areas in the first floor are referred to as "A-Side, B-Side, C-Side and Annex."

- The Annex section, which lies east of Column Line F, has equipment to support pressing and general maintenance operations. Room 104, contains a drum accumulation area for 30-to-55 gallon drums containing waste oils, solvents, uranium, beryllium and 1,1,1 trichloroethane.
- The A-Side, which lies between Column Lines D and F houses large machines for rolling, pressing, and shearing.
- The B-Side includes rolling, pressing, and shearing operations between Columns A and C.
- The C-Side, which is located west of Column line A, supported the manufacturing of depleted uranium armor plating for the M1A1 tanks. Later it was used for waste crate staging for shipments for low-level waste from the facility. Most of the C-side equipment has been removed.

The second floor areas include the inlet air plenum and associated blowers, heat exchangers, and coolers on the north (Rooms 201, 202, 203, and 207) and offices on

the south. These areas are not contaminated. The utility rooms have had all non-essential materials, equipment, and supplies removed as a hazard reduction activity. Similarly, the office areas have had all furnishings removed from them.

The supporting buildings to be included in the Building 883 Cluster are:

883C – Cooling Tower
879 – Filter Plenum

The supporting exterior tanks associated with the Building 883 Cluster are:

Tank 011 – Diesel tank (North of Building 883)
Tank 012 – Argon tank (North of Building 883)
Tank 016 – Foundation Sump Tank, Groundwater (southwest of corner of Building 883)
Tank 312 – Process west sump (UST 62 – Building 889)
Tank 313 – Process west sump (UST 63 – Building 889)

The Building 883 support facilities and support tanks will be discussed below.

Much of the Building 883's process history and the physical descriptions were obtained from the Building 883 Historical Release Report (EG&G, 1994), the DRAFT Safety Analysis Report (EG&G, 1992), and the Facility Safety Analysis (RMRS, 1998). Other sources of information were Building Waste Stream Residue Identification and Characterization (WSRIC), Site Master List of Resource Conservation and Recovery Act (RCRA) Units, and the Site Individual Hazardous Substance Sites (IHSS), Potential Area of Concern (PAC), and Under Building Contamination (UBC) databases.

PHYSICAL DESCRIPTION OF BUILDING 883

General Construction and Foundation

Building 883 is constructed of a steel frame and corrugated asbestos cement exterior panels and some concrete block exterior walls. The construction details of Building 883 and of the associated support structures are discussed in later sections.

Since its construction in 1957, four additions have been made to Building 883:

- 1958, Storage Building Addition, created additional space for storage and manufacturing. This addition was on the east-side of the original structure and is called the Annex.
- 1968, The Plenum Room Addition provided, space for air supply plenum room, and increase the low bay annex for additional storage and increased the size of the high bay area for additional manufacturing areas. This addition was built on the southeast side of the building.
- 1972, The Valve House Addition, was built on the northeast corner of Building 883. This addition was built to house the main steam valves, which control the plant-supplied steam to Building 883.

- 1985, The C-side addition to Building 883 was built to support manufacturing of armor plates containing depleted uranium for the M1A1 tanks. Machining of non-fissile metals continued until 1989.

The foundation of Building 883 consists of individual spread footings, concrete grade beams, and concrete wall footings. The individual spread footings vary in size from 6 feet square to 12 feet square and vary in thickness from 2 feet to 3 feet thick. The concrete grade beams around the periphery of the main building are approximately 10 inches thick and 6 feet deep. The concrete wall footings, are approximately 5 to 6 feet wide and 1 ½ feet thick.

Facility Group 25 – Building 883

Description Facility Group 25 consists of:

B879: Filter plenum for B883
 B883: Uranium rolling and forming facility
 B883C: Cooling tower
 Tank 011: Diesel storage
 Tank 016: Foundation sump tank
 Tank 312: Process waste tank
 Tank 313: Process waste tank

Technical Approach

Building 883 will be closed as a Type 2 Facility using a notification letter in accordance with approved RSOPs. Building 879 and Tanks 016, 312, and 313 will be closed as Type 2 facilities using standard RSOPs. The remaining facilities will be closed as Type 1 facilities. The closure strategy is to remove Building 883, the other facilities, and the tanks by working several decommissioning tasks in parallel.

Authorization Basis: Building 883 is currently operating under the Site-wide Safety Analysis Report (SAR). Although the current Authorization Basis (AB) is sufficient to perform a large number of decommissioning activities, it will require revision in order to perform pre-demolition structural modifications, address scenarios involving ducts and plenums, and address temporary conditions and systems. The current plan is to use the RSOPs and the DPP to cover decommissioning activities. For activities not covered by a RSOP, a HASP will be prepared.

Personnel relocation: Personnel relocation is not an issue because only operations staff are located in Building 883. Temporary shower and locker rooms may be provided during D&D.

Security Requirements: Once all classified materials are verified as having been removed, security control requirements will be eliminated. This will allow the use of non-cleared personnel for hazard elimination, equipment removal, and demolition.

Decontamination: Interior surfaces of large equipment will be inspected to assure that there is no bulk uranium or other material present. No decontamination of

massive equipment will be attempted. Fixatives will be applied to external surfaces and easily accessible interior surfaces prior to packaging for shipment. Fogs and fixatives will be applied to smaller pieces of equipment for contamination control during removal, size reduction and packaging operations. Decontamination of structures, including facility overheads, will be accomplished using standard decontamination processes.

Demolition: The demolition strategy for Building 883 is to use a fixed price subcontractor. The remaining Type 2 facilities will be surveyed decontaminated as required, and demolished using standard industrial techniques. Above ground tanks will be sold for reuse by a fixed-price demolition subcontractor or demolished if not saleable. A fixed price subcontractor, using standard industrial techniques, will demolish miscellaneous structures.

Hazards

Hazards associated with the closure of the Facility Group include industrial, chemical, and occupational hazards, and hazards associated with Beryllium and radioactive contamination.

Assumptions

Building 883 will be closed using a project specific DPP.

Project Risks

No specific project risks have been identified for the tanks and other structures. Project risks associated with closure of Building 883 will be provided in a separate Hazards Assessment Analysis after the RLC report is complete.

Schedule

Closure activities for Facility Group 25 will be planned and executed, based on the Site's 05-closure plan. Attachment 3 provides the summary schedule for closure. Landlord and maintenance activities will complete in the 4th quarter of FY03. Stabilization and hazard removal started in the 2nd quarter of FY01. But with the limited funding in the 800 Area, these activities are at a minimum. The baseline schedule projects a completion date in the 3rd quarter of FY03. The working schedule shows a delay at this time of 10-12 months. This delay, if not corrected, will not impact the final demolition completion date.

Opportunities for Acceleration

The baseline schedule for Group 25 is to start dismantlement and decommissioning in the 1st quarter of FY04, with a scheduled completion date of 4th quarter of FY05. The working schedule is working on an accelerated schedule of being complete with the decommissioning of the 883 Facility Group at the end of the 1st quarter of FY05.

Table A

B865 Facility Group				B883 Facility Group			
Fac. #	Sq. Ft.	Type		Fac. #	Sq. Ft.	Type	
865	38,250	2			60,500	2	
827	384	1		883C	452	1	
C-865	300	1		879	3,640	2	
866	418	2		Tank 011	133 Cu. Ft.	1	UG
867	2,809	2		Tank 012	266 Cu. Ft.	1	AG
868	2,133	2		Tank 016	333 Cu. Ft.	2	UG
TK 25	133 Cu. Ft.	1	AG	Tank 312	200 Cu. Ft.	2	UG
Tank 010	266 Cu. Ft.	1	AG	Tank 313	200 Cu. Ft.	2	UG
Tank 024	133 Cu. Ft.	1	AG				
Tank 252	200 Cu. Ft.	1	AG				

800 Area Work Breakdown Structure (WBS)

Details of the WBS are contained in the Site's BEST Project Control System.

800 Area Specific Assumptions

The decommissioning sequence for the 800 Area is based on:

1. Early elimination of hazards.
2. Targeting high project risk activities for early completion.
3. The need to use facilities to support other activities, such as waste storage and personnel relocation.
4. The applications of funds that become available, to the acceleration of critical path activities, and to the early closure of type 1 facilities.

Closure of facilities will be conducted in the following sequence.

General Type 1 Facility Decommissioning Sequence

- Removal of loose equipment and materials, desk, tables, chairs, ship equipment, tools, supplies, and trash
- Tenant relocation and the removal of offices
- Perform RLC planning, sampling, and cost estimating tasks.
- Reduction of utility systems as appropriate, reducing landlord and maintenance costs
- Shutting down high maintenance, high cost systems, securing the facility
- Write RLC report. Complete RFCA activities and receive demolition approval.
- Prepare Statement of Work for demolition and dismantlement

General Type 2 Facility Decommissioning Sequence:

- Removal of loose equipment, desks, cabinets, etc
- Perform RLC activities to indicate areas of the facility/structure requiring decontamination activities.
- Equipment/systems will be dismantled/removed in accordance with Integrated Work Control Package (IWCP) and RSOP procedures. The electrical systems supplying lighting and distribution will remain in place. The ventilation systems will be re-configured to support decontamination activities.
- Asbestos removal internal to the structure will be completed, and the areas requiring decontamination will be isolated from the balance of the structure to allow decontamination activities and asbestos abatement activities.

- Room or area walls will be used as containment barriers, or temporary containment barriers will be installed to ensure that decontamination activities will be isolated from the balance of the structure. As necessary, mobile High Efficiency Particulate Air (HEPA) ventilation will be installed for ventilation of areas being decontaminated.
- Following equipment removal/dismantlement, remaining electrical systems (such as conduit, switches, and distribution of electricity) will be removed. Temporary electrical services will be installed as required. Lighting and ceiling fixtures will be removed and packaged for disposal as appropriate.
- Remaining safety systems will be removed to expose areas requiring decontamination activities, and any necessary modifications performed to replace required safety items.
- Remaining utility supply systems (water, air, etc.) will be removed as required, and temporary services for support of decontamination activities installed to the area.
- Upper walls and ceiling areas will be decontaminated first.
- Lower walls will be decontaminated and preliminary surveys completed.
- Floor areas will be decontaminated utilizing appropriate methods and equipment required by the extent of the contamination.
- Initial final Pre-Demolition Surveys (PDS) will be completed.
- Areas exhibiting residual contamination following the initial final surveys will be physically isolated, decontaminated, and re-surveyed.
- Final surveys of interior surface areas will be performed.
- Removal of asbestos bearing materials in the roofs will be accomplished as appropriate.
- Final Surveys (PDS) of the building structure (interior and exterior) will be completed.
- Facility/structure will be "cold-closed" or prepared for immediate demolition/removal under the Facility Disposition protocols.

There are radioactive concerns in several of the 800 Area facilities. High contamination areas (HCA) will be dispositioned similarly throughout the facilities (881, 883, 865, 828, 875). Whenever the contamination that is discovered exceeds the 10 CFR 835 definition of an HCA, HCA radiation operational protocols will be utilized to first decontaminate the area and remove the source. At a minimum the area will be lowered to below the threshold for HCA. If this cannot be accomplished through standard work practices of decontamination, each area will be evaluated on a case by case basis in determining if a more aggressive method is warranted.

Environmental Restoration (ER) Interface

The 800 Area Decontamination & Demolition activity interfaces with ER as follows:

- The ER schedule will be integrated with the decommissioning schedule to allow for the planning and initiation of ER characterization activities during facility decommissioning.
- Demolition and ER activities will proceed as an uninterrupted two-phase operation culminating in closeout of the associated IHSSs, PACs, and UBC sites.

Both groups will work closely to ensure the overall scope is completed efficiently and effectively.

Environmental Restoration has established guidelines for D&D activities to assure that, upon completion of D&D, ER is left with a technically feasible final closure. These guidelines have been incorporated into the closure strategy and include:

- D&D requirements for process waste system removal and isolation
- Depth of utility removal
- Sealing of remaining underground utilities
- Survey and documentation requirements for utility termination points
- Requirements for sanitary sewer line flushing and sealing
- Depth of structure removal requirements for contaminated and non-contaminated structures
- Requirements for slab removal
- Requirements for non-contaminated tunnels, vaults, tanks, etc. that could provide a surface water pathway
- Requirements for fence posts and utility posts in contaminated and non-contaminated areas
- Requirements for sidewalks
- Requirements for above ground tanks, below ground direct buried tanks, tanks within structures, tank structures separate from other buildings, and lines and valves between tanks and buildings
- RCRA closure requirements
- Characterization requirements
- Grading and vegetation requirements

Personnel Relocation

Most prior-use manufacturing facilities (for example, Building 865) house only the minimum number of people required to execute closure or operations. Facilities of concern, relative to personnel/function displacement, within the 800 Area include:

- Building 850, which houses KH Team administrative functions, including procurement and accounting.
- Building 881, which houses the central computing facility and staff. This activity is slated for movement to the Federal Center in Lakewood.

Finding space for displaced personnel will not be an insurmountable issue. Overall RISS relocation activities will be evaluated on a periodic basis to assure that adequate temporary offices are established, if required.

800 Area Facility Characterization Strategy

Approaches to property removal, facility stabilization, decontamination, and demolition, and related controls will be developed based on thorough characterization for all of the 800 Facility Groups. Many of the facilities will be characterized and dispositioned in accordance with the Property Release Evaluation. Any Pre-demolition Surveys will be performed in time to support the demolition of the facility.

In an attempt to expedite the decommissioning schedule, a two-phase estimate is being developed for each of the five 800 Facility Groups to initiate characterization activities. The first phase is for the characterization team to develop the plans, HASP, mapping and other packages to start the fieldwork. This work will be prioritized and started if there is available funding. The second phase is the actual sampling and report writing.